

TECHNICAL DATA SHEET

RILSAN® BESNO P40 TL

POLYAMIDE 11 PELLET

RILSAN® BESNO P40 TL is a polyamide 11 compound. It is produced from a renewable & sustainable source (castor oil). This natural grade is designed for tube extrusion. It's a market reference in the air brake (PHL) & automotive fluid transfer line applications.

Designation : ISO 16396 - PA11-P, EG1HL, C22-003

DESIGNATION

PA11-P

MAIN APPLICATIONS

- Auto - Gasoline Lines
- Auto - Vacuum & Blow By Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Plasticizer

MECHANICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
Hardness, Shore D, 15 s	- / 60	ISO 868
Charpy unnotched impact strength, 23°C (73°F)	- / No Break	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / No Break	ISO 179 1eU
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50 %	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	- / 345 MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 7 kJ/m2	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 350 MPa	ISO 178

*DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditionned.

THERMAL PROPERTIES

プロパティ	価値	テスト基準
Vicat softening temperature, 50N at 50°C/h	140 °C	ISO 306
Heat deflection temperature, 0.45 MPa	130 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	45 °C	ISO 75-1/-2
Melting temperature, 10°C/min	181 °C	ISO 11357-1/-3

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ELECTRICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
Surface resistivity, 23°C (73,4°F)	- / 5.0E+11 ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 1.0E+9 ohm/m	IEC 62631-3-1
Dielectric stress, 23°C (73,4°F)	- / 23	IEC 60243-1
Relative permittivity, 100Hz	- / 9	IEC 60250
Relative permittivity, 1Mhz	- / 4	IEC 60250
Dissipation factor, 100Hz	- / 2440	IEC 60250
Dissipation factor, 1Mhz	- / 2440	IEC 60250
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112

*DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditionned.

OTHER PROPERTIES

プロパティ	価値	テスト基準
Bio-based carbon content, Measured	89 %	ASTM D6866
Water absorption, 23°C(73°F), immersion, equilibrium	1.6 %	ISO 62
Specific gravity, 23°C (73°F)	1.04 g/cm ³	ISO 1183-1

包装

This grade is delivered dried in sealed packaging ready to be processed. Available packaging:

- 20 kg / 44 lb bags
- 25 kg / 55 lb bags
- 454 kg / 1000 lb rigid containers
- 550 kg rigid containers

賞味期限

Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

PROCESSING CONDITIONS:

- 典型的な熔融温度 (最小 / 推奨 / 最大) - 射出成形: 230°C / 250°C / 270°C (445°F / 480°F / 520°F)
- 典型的な金型温度 - 射出成形: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

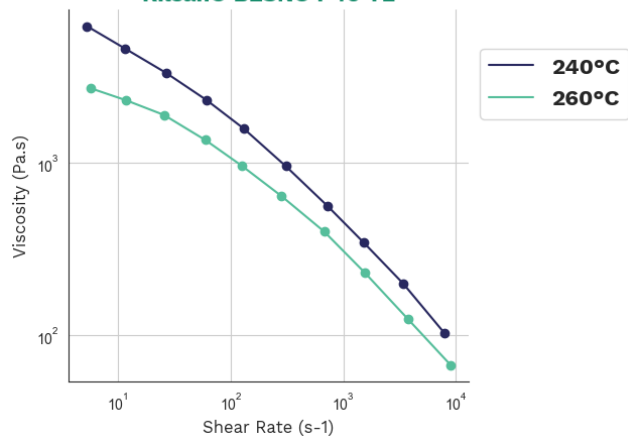
SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

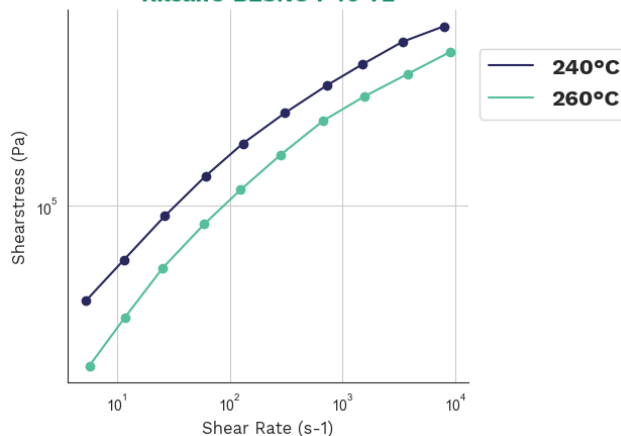
RILSAN® BESNO P40 TL

DIAGRAMS

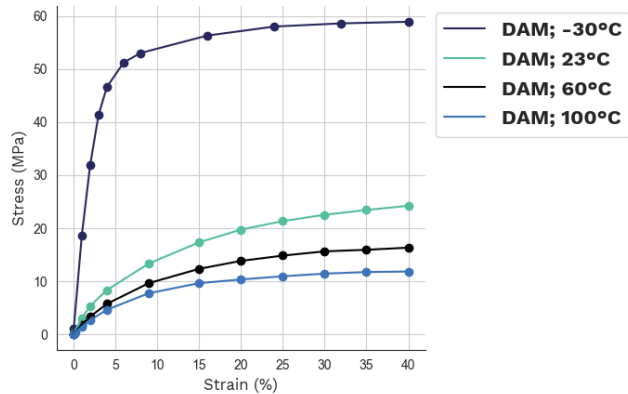
Viscosity-shear rate
Rilsan® BESNO P40 TL



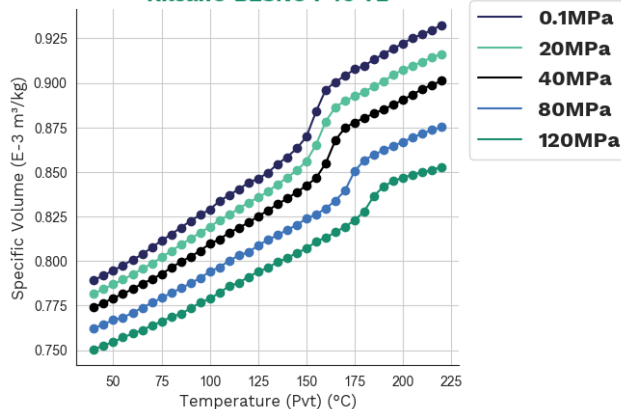
Shearstress-shear rate
Rilsan® BESNO P40 TL



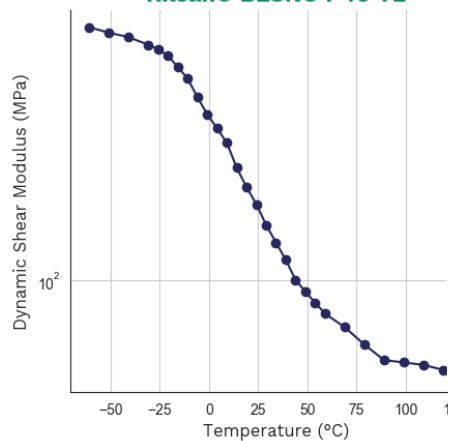
Stress-strain
Rilsan® BESNO P40 TL



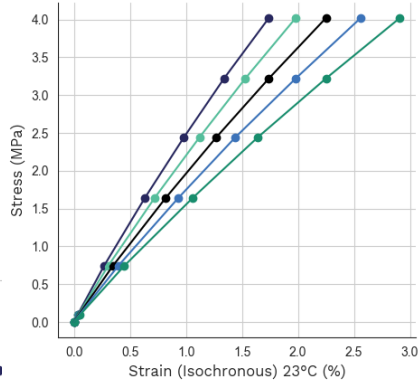
Specific volume-temperature (pvT)
Rilsan® BESNO P40 TL



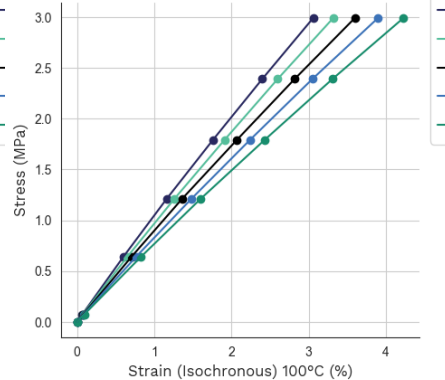
Dynamic Shear modulus-tempera
Rilsan® BESNO P40 TL



Stress-strain (Isochronous) 23°C
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Stress-strain (Isochronous) 100°C
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